

Notice of Allowability

Application No.

10/814,218

Applicant(s)

CAMPBELL ET AL.

Examiner

Mohammad W. Reza

Art Unit

2136

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 12/20/2007.
2. ☒ The allowed claim(s) is/are 1-3, 5, 7-11, 13, 15-18, 20, 22-25, 27, 29, and 30; renumbered as 1-22.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

NASSER MOAZZAMI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

2,8108

DETAILED ACTION

1. This office correspondence is response to the applicant's response filed on 12/20/2007.

Allowable Subject Matter

2. Claims 1-3, 5, 7-11, 13, 15-18, 20, 22-25, 27, 29, and 30 are allowed. The following is an examiner's statement of reasons for allowance: In interpreting the claims, in light of the Specification and the applicant's amendments filed on 12/20/2007, the Examiner finds the claimed invention to be patentably distinct from the prior art of record.
3. Bugnion (US patent 6496847) discloses an apparatus comprising: a processor having a normal execution mode and a secure execution mode to create a secure execution environment; in which a plurality of separate virtual machines are created that operate simultaneously and separately from one another including at least a first virtual machine to implement trusted guest software in a protected memory area and a second virtual machine to implement a non-trusted guest operating system (OS) in a non-protected memory area.
4. Michael L. Spilo (US Patent 5459869) discloses the switching from virtual execution mode to normal execution mode. Spilo generally relates to: a method and system for allowing protected mode device drivers and resident programs to load and execute from an MS/PC-DOS environment...enabling protected mode programs to transition between host environments allowing for protected mode programs remaining

in DOS [to] transition and continue to function in Windows environment... [and to] improved method of mode switching for such drivers.

5. However, the prior art of record fails to teach or suggest individually or in combination that "a secure virtual machine monitor (SVMM) that responsive to a command to tear down the secure execution environment from a non-trusted guest OS causes the processor to exit out of the secure execution mode, scrub the protected memory area associated with the trusted guest software, tears down the secure execution environment, and instructs the non-trusted guest OS to resume control in the normal execution mode" as specifically recited in the independent claims 1, 9, 16, and 23. That is, although the portion of Bugnion mentions "token a secure virtual machine monitor," such portion of Bugnion does not appear to disclose that a SVMM that responsive to a command to tear down the secure execution environment from a non-trusted guest OS causes the processor to exit out of the secure execution mode. Thus, a non-trusted guest OS operates in conjunction with the secure virtual machine monitor (S.VMM). Further, there is no teaching or suggestion in Bugnion or Spilo of the scrubbing of the protected memory area associated with the trusted guest software followed by the tearing down of the secure execution environment. Accordingly, the applied combination of Bugnion and Spilo does not disclose the aforementioned limitation of the claims. So, Claims 1-3, 5, 7-11, 13, 15-18, 20, 22-25, 27, 29, and 30 are allowed because of the combination of other limitations and the limitations listed above.

6. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

7. Claims 1-3, 5, 7-11, 13, 15-18, 20, 22-25, 27, 29, and 30 are patentable.

8. Claims 4, 6, 12, 14, 19, 21, and 26, and 28 are cancelled.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohammad w. Reza whose telephone number is 571-272-6590. The examiner can normally be reached on M-F (9:00-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MOAZZAMI NASSER G can be reached on (571)272-4195. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Application/Control Number:
10/814,218
Art Unit: 2136

Page 5

Mohammad Wasim Reza

AU 2136

NASSER MOAZZAMI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

2/8/08